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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/604,472	06/27/2000	William R. Van Eppen	65545-0074	5091

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EXAMINER

HAQ, NAEEM U

ART UNIT	PAPER NUMBER
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3625

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/604,472

Applicant(s)

VAN ETEN ET AL.

Examiner

Naeem Haq

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This action is in response to the Applicants' amendment B, paper number 11, filed on May 28, 2003. Claims 17-25 are pending and will be considered for examination.

Claim Objections



Claim 22 and 23 are objected to because of the following informalities: These claims recite the limitations "said class relationships" and "said attribute relationships". There is insufficient antecedent basis for these limitations in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 19, 23, and 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Referring to claim 19, this claim recites the negative limitation "...not normally accessible..." There is no support for this limitation in the Applicants' specification.

Referring to claims 23 and 25, these claims recite the limitations "...said attribute relationships are between a leaf class and an attribute" and "...said value relationships are between an attribute and a value of the attribute" respectively. There is no support for these limitations in the Applicants' specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19, 23, and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 19, this claim recites the limitation "...not normally accessible..." This limitation is a relative limitation which renders the claim indefinite. The Examiner notes that either a database is accessible or it is not accessible to a user. The limitation "...not normally accessible..." is a purely subjective limitation that is not defined by the claim or the specification. Furthermore, one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For examination purposes, the Examiner will assume that the database is accessible to the user since even a database which is "not normally accessible" is at some point accessible to a user.

Referring to claim 23, this claim recites the limitation "...said attribute relationships are between a leaf class and an attribute." It is unclear to the Examiner what this limitation means. The specification does not provide an adequate description of this limitation. Therefore, an art rejection of claim 23 has been withheld pending clarification of the 112 rejections.

Referring to claim 25, this claim recites the limitation "...said value relationships are between an attribute and a value of the attribute." It is unclear to the Examiner what this limitation means. The specification does not provide an adequate description of this limitation. Therefore, an art rejection of claim 25 has been withheld pending clarification of the 112 rejections.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 17-20, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erickson (US Patent 6,014,644) in view of <http://www.research.ibm.com/journal/sj/361/srinivasan.html> "Object persistence in object-oriented applications" hereinafter referred to as IBM.

Referring to claims 17 and 18, Erickson teaches a procurement system for a buyer to purchase a desired item said system comprising: a first catalog database accessible to said buyer (column 8, lines 28-30; Figure 1, item "18") and a second catalog database (column 8, lines 28-30; Figure 1, item "16"). Erickson does not teach

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that the first database lacks the desired item. However, Erickson teaches that the buyer may search the first or second database to identify suppliers that offer goods of interest to the buyer (column 8, lines 28-30, lines 51-67; column 12, line 58 – column 13, line 1). Furthermore, the first and second databases do not contain the same data because the buyers and suppliers are allowed to add data into the databases (column 3, lines 13-42; column 7, line 46 – column 8, line 27). Finally, Erickson teaches that mechanisms are needed to keep the first and second databases synchronized (column 11, lines 51-56; column 12, lines 30-35). Therefore, the feature that the first database lacks a desired item is inherent in the system of Erickson. One of ordinary skill in the art would realize that because Erickson places no restriction on when the buyers and suppliers can add data into the databases that these databases will be out of sync at some point (i.e. there will be data in one database that does not exist in the other database). Thus, Erickson repeatedly stresses the need to keep the databases synchronized. However, Erickson teaches the databases are synchronized on a periodic basis (column 12, lines 9-12; column 17, lines 51-55). Therefore there will be times when the databases are out of sync. Erickson does not teach that each unique item stored within the first and second catalog databases is identified with respect to class, attribute, and value relationships. However, IBM teaches an object-oriented database model that allows data to be captured and stored in a database using object-oriented principles (page 2, paragraph 2; page 3, paragraph 4; page 4, paragraphs 3 and 4). Furthermore, IBM teaches that object-oriented database management systems (OODBMS) use class, attribute, and value relationships to store and identify items with a database (page 6, "Table 1"; pages

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7 and 8, "Complex objects"; page 12, "Encapsulation"; page 13, "Inheritance"; Figures 3 and 4). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of IBM into the system of Erickson. One of ordinary skill in the art would have been motivated to do so in order to avoid the impedance mismatch that exists with relation data models and databases, as taught by IBM (page 4, paragraph 4 – page 5, paragraph 2). Erickson does not teach an item selection procedure that relies on said relationships to search for the desired item within the second database when it is not located within the first database.

However, IBM teaches that object-oriented databases have an Object Query Language (OQL) that allows for searching a database (page 4, paragraph 1). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate OQL of IBM into the system of Erickson. One of ordinary skill in the art would have been motivated to do so in order to efficiently search an object-oriented database. Likewise, searching the second database when an item is not located within the first database would also have been obvious to one of ordinary skill in the art at the time of invention because Erickson teaches that a buyer can search both the first and second databases.

One of ordinary skill in the art would have been motivated to do so in order to search both databases.

Referring to claims 19 and 20, Erickson teaches a special requisition identifying the desired item (column 13, lines 30-38; column 14, line 56 – column 15, line 11). Erickson does not teach that the requisition uses said class, attribute, and value

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relationships. However, IBM teaches that object-oriented databases have an Object Query Language (OQL) that allows for searching a database (page 4, paragraph 1). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate OQL of IBM into the system of Erickson. One of ordinary skill in the art would have been motivated to do so in order to efficiently search an object-oriented database. Erickson also teaches a master database (Figure 1, items "16", "20") including the desired item, said special requisition being used to search for the desired item in the master database (column 13, lines 30-38; column 14, line 56 – column 15, line 11). Erickson also teaches forwarding the special requisition to a supplier who provides the desired item (column 13, lines 30-38; column 14, line 56 – column 15, line 11; column 15, lines 30-35). Erickson does not teach that the databases are not updated according to said class, attribute, and value relationships. However, Erickson places no restriction on when the buyers and suppliers can add data into the databases. Therefore, the decision not to update a database would have been obvious to one of ordinary skill in the art, at the time the invention was made.

Applicants have not disclosed that not updating a database provides an advantage, is used for a particular purpose or solves a stated problem. Furthermore, one of ordinary skill in the art would have expected Applicants' invention to perform equally well with the teachings of Erickson and IBM because the decision to update or not update a database does not affect the system of the prior art in any way. Therefore, it would have been obvious to one of ordinary skill in this art to modify the prior art to obtain the invention as specified in the claims.

Referring to claim 22, Erickson does not teach that the class relationships are hierarchical among classes. However, IBM teaches that object-oriented databases use principles of object-oriented programming such as inheritance which provides for a hierarchy among classes (page 13, paragraphs 2 and 3). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of IBM into the system of Erickson. One of ordinary skill in the art would have been motivated to do so in order to efficiently search and maintain an object-oriented database.

Referring to claim 24, Erickson and IBM do not teach that the attributes comprise static, differentiating, and dynamic. However, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to incorporate these features into the cited prior art. Applicant has not disclosed that static, differentiating, and dynamic attributes provide an advantage, are used for a particular purpose or solve a stated problem. Furthermore, one of ordinary skill in the art would have expected Applicants' invention to perform equally well with the teachings of the cited prior art because any item has data associated with it which describes the item uniquely. Therefore, it would have been obvious to one of ordinary skill in this art to modify the cited prior art to obtain the invention as specified in the claims.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Erickson (US Patent 6,014,644) in view of <http://www.research.ibm.com/journal/sj/361/srinivasan.html> "Object persistence

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in object-oriented applications” hereinafter referred to as IBM and further in view of Official Notice.

The cited prior art does not teach that a search engine performs the item selection procedure (i.e. database query). However, Official Notice is taken that it is old and well known in the art to use a search engine to search a database. Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate a search engine into the system of Erickson and IBM. One of ordinary skill in the art would have been motivated to do so in order to provide a user with a user-friendly interface for searching a database.

Response to Arguments

Applicant's arguments with respect to claims 17-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naeem Haq whose telephone number is (703)-305-3930. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff A. Smith can be reached on (703)-308-3588. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

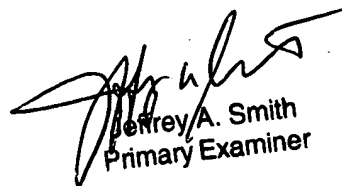
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Naeem Haq, Patent Examiner
Art Unit 3625

March 22, 2004



Jeffrey A. Smith
Primary Examiner